CULTURE AND VALUE

OF THE

FARM HOME GARDEN

NORTH CAROLINA
STATE COLLEGE OF AGRICULTURE AND ENGINEERING
NORTH CAROLINA DEPARTMENT OF AGRICULTURE and
U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

Coöperative Extension Work in Agriculture
and Home Economics

N. C. AGRICULTURAL EXTENSION SERVICE
I. O. SCHAUB, Director
RALEIGH

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF MAY 8 AND JUNE 30, 1914

FOREWORD

A study of the last census report will reveal that there are ma people in North Carolina who do not realize the value of the far home garden.

From an economic standpoint the home garden is worth recogn tion. This statement is based upon an accurate estimate that a hal acre garden, properly planted and cared for, is equal in value, und average seasonal and market conditions, to two and one-half acres cotton with an average yield of one bale to the acre.

The money-value of a garden is of secondary importance whe compared with its value in maintaining the health of the farm famil It is now a recognized fact that certain food constituents (minerals an vitamines) are essential to the health and development of the huma body and that the richest and perhaps the cheapest source of the constituents is vegetables, preferably of the leafy types, such as spinac and other greens. The garden, therefore, should be a source of prof and health throughout the year.

CULTURAL METHODS

By Glenn O. Randall, *Extension Horticulturist*

Every farm home garden should be so planned that at least two egetables, one of which is a leafy vegetable, may be placed fresh on ie table every day in the year. This requirement cannot be fulfilled nless careful attention is given to planning and caring for the garden.

USE THE BEST GARDEN SEEDS

The seed furnishes the only source of food for the young vegetable edling until it is big enough to grow a root system and feed itself. It plain that a seedling from a seed of low vitality may partially starve efore the roots of the young plant are developed enough to push it ito vigorous growth. As a result, if old vegetable seeds of low vitality re planted, part of the garden will have to be replanted to get a mplete stand of plants. This takes extra time, delays the maturity f part of the garden and causes an inferior crop from the standpoint f quality and production.

Therefore, it is not a good practice to put off buying the annual ipply of seed until the day before planting and then run the risk of uying them at the corner grocery with no thought as to the age, vi- bility or variety.

There is a variation in the length of time that vegetable seeds will etain their vitality. This variation depends on the variety of seed, eather conditions during the season in which they are grown and the il and cultural conditions under which the parent plants are produced. he only sure way to find the value of old seeds is to make germination sts. Cucumber seed will retain its ability to grow for as long as ten ears, while onion seed will not hold its vitality longer than two years.

Onion, parsnip, salsify, sweet corn, parsley, pea, bean and leek seeds re among those that should be bought fresh every year. Other seeds ay be stored for a longer period of time, but the safest practice for the ardener is to buy fresh seeds every year.

Most reliable seed concerns take these points into consideration and re careful to give their customers only good stock. It is to the advan- age of the gardener to buy his entire stock from such a concern or emand that the retail grocer keep a fresh supply of reliable vegetable eeds on hand.

START SOME PLANTS EARLY

The garden plan suggests the planting of such crops as head l tuce, tomatoes and peppers. To grow these crops to advantage in Nor Carolina the seed should be planted in the hotbed and the plants tra ferred to the garden when weather conditions are favorable. This necessary in the case of hot weather crops such as tomatoes and pe pers because they require a long season in which to mature. Su crops as head lettuce require a cool season through the largest pa of their development. For this reason the spring crop should be start in a hotbed and the plants from the hotbed transplanted in the fie as soon as danger of frost is past. Then they may mature during t cool season of spring.

When growing plants to be transplanted the most practical stru ture for use on the farm is a manure hotbed.

Preparing Manure for the Hotbed. Manure should be prepare for the hotbed at least three weeks before it is to be used. Fresh hor manure from grain-fed animals should be placed in a compact pi so as to start fermentation. It should contain a reasonable amount litter but not be too coarse. If the manure is dry it should be moisten with water before being placed in the pile. As soon as fermentatio is under way the manure should be stirred, the lumps broken and t inner portion of the pile turned to the outside. When the whole pi shows signs of steaming it is ready to place in a flat pile with suc dimensions that the hotbed frame may be set firmly on top of the pile.

In making this bed the manure should be tramped down a laye at a time until a depth of two feet is reached. The frame and sas should be put in place as soon as the bed is completed; four to si inches of soil should be placed on top of the manure and the sash imm diately put over the frame to protect the manure from snow and rai

In no case should the seed be planted or the plants set until th violent heating, following the moving of the manure, has somewha subsided. Sometimes this heating does not become evident for thre or four or even more days after the bed is made. It would be a seriou mistake to plant the seeds during this interval as the violent heatin would kill them. After the bed is cooled down to 85 degrees F., th seed may be safely planted.*

*Mimeographed directions on construction and blue print plans for a hotbed may b obtained from Office of Publications, N. C. State College Extension Division. Also Garde Manual, (Extension Circular No. 122) containing valuable information on gardening i ready for distribution.

CULTURAL METHODS

To use labor efficiently and conserve time the garden should be laid out as a long narrow plot to facilitate the use of horse-drawn implements in plowing and preparing the seed bed and in cultivating the crops planted. There is no need to waste time and labor by hand hoeing when it is possible to plant the garden in long rows far enough apart to enable the use of a one-horse cultivator. If the family is not large enough to consume a complete row of any one vegetable, two or more vegetables of like seasonal requirements and similar growth habits, such as beets, carrots, and parsnips may be planted in the same row. (See Fig. 1.) If the old garden plot is small and square in shape, tear down the fence and lay out a new long-row garden, according to this principle. It will be well worth the time and labor expended.

Seedbed. Fall plowing is preferable for several reasons, the most important being (1), that fall-plowed soil is in a better physical condition for storing moisture than spring-plowed; (2), fall plowing allows for the destruction of many injurious insects and diseases by exposure to winter weather, and (3), fall-plowed land can be worked earlier in the spring than unplowed soil.

Regardless of the practice followed the garden plot should be plowed as deeply as possible without turning subsoil to the surface. If the garden is fall-plowed it should be disced in the spring, then leveled with a plank drag. If spring-plowed, it should be dragged immediately after plowing. The use of horse-drawn implements prevents almost completely the necessity for hand raking.

Fertilization. It is not possible to produce a profitable garden on a "skim-milk soil," one from which the richness has been separated by continuous cropping coupled with no addition of fertility. It is important, therefore, that a heavy application of manure be made frequently and thoroughly incorporated with the soil. In addition commercial fertilizers may be used to advantage on the poor types of soil. Tomatoes and potatoes respond readily to the use of acid phosphate (200-500 lbs. per A.) applied in the row, and leafy vegetables respond with vigorous and succulent growth to an application of nitrate of soda using 100 to 400 pounds per acre.

VARIATION IN SEASONAL REQUIREMENTS OF DIFFERENT VEGETABLES

Vegetables may be divided into two general classes: Namely, Cool-season Crops and Warm-season Crops. For example, lettuce, cabbage,

kohlrabi and spinach may be classified as Cool-season crops since they require the cool weather of early spring and fall for proper development. These are distinctly different from vegetables of the Warm-season class such as tomatoes, cucumbers, or squashes, as this class requires the high temperatures of summer for the best development.

It is essential, therefore, that the seasonal requirements of the different vegetables be kept in mind. With this point in mind the following suggestive system of planting has been worked out in connection with the garden plan, (Fig. 1,) to serve as a guide to the farm gardener in laying out and producing a year-around home garden such as every farmer in North Carolina should have as regularly as he produces cotton, tobacco or corn.

VARIETIES AND AMOUNTS OF SEEDS RECOMMENDED FOR THE FARM HOME VEGETABLE GARDEN

140x200 Feet

First Planting—March 15

Row	1	½ row Washington asparagus	50 roots
		⅓ row Victoria rhubarb	20 roots
		⅙ row Egyptian perennial onions	1 lb. set
Rows	2- 5	E. Ohio or Irish Cobbler potatoes (use certified seed)	1 bu.
Row	6	½ row white onion sets	2 lbs.
		½ row Iceberg lettuce plants (plants for 2 plantings)	260 plants
Row	7	½ row white onion sets	1 lb. set
		½ row Victoria spinach (seed for 2 plantings)	3 oz.
Row	8	⅓ row black Seeded Simpson leaf lettuce	½ oz.
		⅓ row Purple Top Strap Leaf turnip (seed for 2 plantings)	1 oz.
		⅓ row Early White Vienna kohlrabi (seed for 2 plantings)	1 oz.
Row	9	½ row Alaska peas	1 lb.
		½ row Little Marvel peas	1 lb.

Second Planting—About April 1

Row	10	½ row Gradus (Prosperity) peas	1 lb.
		½ row Telephone peas	1 lb.
Row	11	½ row Crosby's Egyptian beets	1 oz.
		⅓ row Chantenay carrots (seed for 2 plantings)	1 oz.
		⅙ row Champion Moss Curled parsley	1 pkt.
		(Marked with Scarlet Globe radish)	1 oz.
Row	12	⅔ row Improved Guernsey parsnips	1 oz.
		(Marked with White Icicle radish)	1 oz.
		⅓ row Lucullus Swiss chard	1 oz.

v	13	⅓ row Georgia Collards	70 plants
		⅓ row Early Jersey Wakefield cabbage plants	36 plants
		⅓ row Copenhagen Market cabbage plants	36 plants
w	14	½ row All Season cabbage seed	½ oz.
		½ row Copenhagen Market cabbage seed	½ oz.

Third Planting—About April 15

ws	15-18	⅓ each row Golden Bantam sweet corn	½ lb.
		⅓ each row Howling Mob sweet corn	½ lb.
		⅓ each row Evergreen sweet corn	½ lb.
w	19	⅓ row New Zealand spinach	1 oz.
		⅔ row Early Red Valentine string beans	½ lb.

Fourth Planting—About May 1

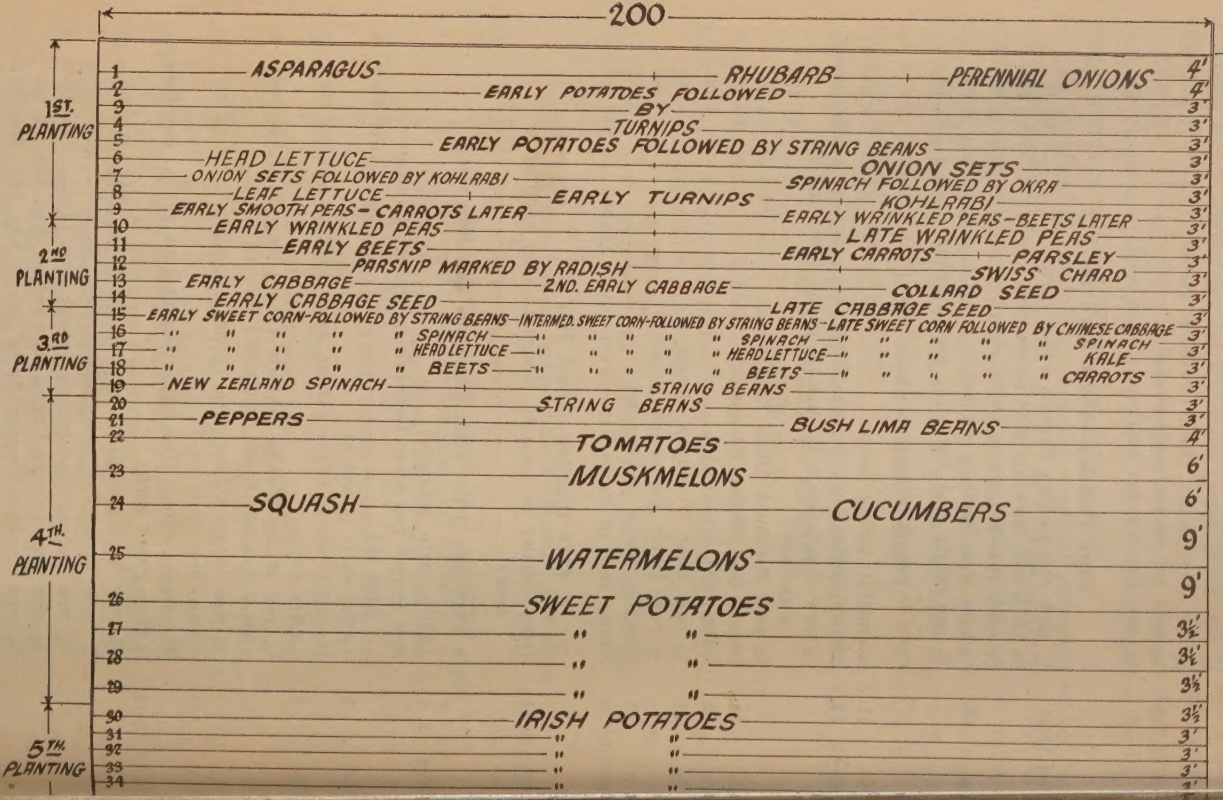
w	21	Bountiful string beans	2 lbs.
w	20	⅓ row Ruby King pepper plants	30 plants
		⅓ row Henderson's Bush lima beans (seed for 2 plantings)	1½ lbs.
		⅓ row Fordhook Bush lima beans	½ lb.
w	22	Bonny Best tomato plants	50 plants
w	23	Eden Gem muskmelon	1 oz.
w	24	½ row Bush Fordhook squash	1 oz.
		½ row Davis Perfection cucumber	1 oz.
w	25	Kleckley Sweet watermelon	2 oz.
ws	26-29	Nancy Hall or Porto Rico sweet potato plants	640 plants

Fifth Planting—About July 15

ws	30-34	Irish Cobbler or Lookout Mountain (use certified seed)	2 bu.

Sixth Planting—After First Plantings are Harvested

ws	2- 4	(After early potatoes)	
		Sow Purple Top Strap Leaf turnip broadcast (about Aug. 15)	See Row 8
w	5	(After early potatoes)	
		Bountiful string beans (about Aug. 15)	See Row 20
w	7	(After onions)	
		½ row White Vienna kohlrabi (about Aug. 15)	See Row 8
		(After spinach)	
		½ row White Velvet okra (about June 20)	2 oz.
w	8	(After first plantings)	
		Henderson's Bush lima beans (about June 20)	See Row 2
ws	15-18	(After sweet corn)	
		⅔ row Bountiful string beans (about Aug. 15)	See Row 20
		1 row Victoria spinach (about Aug. 15)	See Row 7
		⅔ row Iceberg head lettuce (about Aug. 15)	See Row 6
		⅛ row Dwarf Green Curled kale (about Aug. 15)	¼ oz.
		⅔ row Crosby's Egyptian beets (about Aug. 15)	See Row 2
		⅓ row Chantenay carrots (about Aug. 15)	See Row 3


200
130'
1ST. PLANTING
2ND PLANTING
3RD PLANTING
4TH. PLANTING
5TH. PLANTING
1 ASPARAGUS
RHUBARB
PERENNIAL ONIONS
4'
2 EARLY POTATOES FOLLOWED
4'
3 BY
3'
4 TURNIPS
3'
5 EARLY POTATOES FOLLOWED BY STRING BEANS
3'
6 HEAD LETTUCE
ONION SETS
3'
7 ONION SETS FOLLOWED BY KOHLRABI
SPINACH FOLLOWED BY OKRA
3'
8 LEAF LETTUCE
EARLY TURNIPS
KOHLRABI
3'
9 EARLY SMOOTH PEAS - CARROTS LATER
EARLY WRINKLED PEAS - BEETS LATER
3'
10 EARLY WRINKLED PEAS
LATE WRINKLED PEAS
3'
11 EARLY BEETS
EARLY CARROTS
PARSLEY
3'
12 PARSNIP MARKED BY RADISH
SWISS CHARD
3'
13 EARLY CABBAGE
2ND. EARLY CABBAGE
COLLARD SEED
3'
14 EARLY CABBAGE SEED
LATE CABBAGE SEED
3'
15 EARLY SWEET CORN-FOLLOWED BY STRING BEANS-INTERMED. SWEET CORN-FOLLOWED BY STRING BEANS-LATE SWEET CORN FOLLOWED BY CHINESE CABBAGE
3'
16 " " " " " SPINACH " " " " " SPINACH " " " " " SPINACH
3'
17 " " " " " HERD LETTUCE " " " " " HEAD LETTUCE " " " " " KALE
3'
18 " " " " " BEETS " " " " " BEETS " " " " " CARROTS
3'
19 NEW ZEALAND SPINACH
STRING BEANS
3'
20 STRING BEANS
3'
21 PEPPERS
BUSH LIMA BEANS
3'
22 TOMATOES
4'
23 MUSKMELONS
6'
24 SQUASH
CUCUMBERS
6'
25 WATERMELONS
9'
26 SWEET POTATOES
9'
27 " "
3½'
28 " "
3½'
29 " "
3½'
30 IRISH POTATOES
3½'
31 " "
3'
32 " "
3'
33 " "
3'
34 " "

VALUE OF VEGETABLES IN THE DIET

By Cornelia C. Morris
Division of Home Demonstration

Dr. E. V. McCollum, of Johns Hopkins University, gives three rules t follow in making out the dietary. These are:

First. Every one should have every day a quart of milk or its equiva- nt in cheese, cottage cheese, in such dishes as custards, ice cream, junket, coa, milk toast, in creamed soups and vegetables.

Second. Every one should eat every day two salads of fresh, raw, un- oked fruits or vegetables. It is well to plan to eat one of these at lunch supper and the other at dinner.

Third. Every one should have every day one liberal serving of some oked green leafy vegetable, such as spinach, kale, cabbage, watercress or rnip or beet tops.

"When you have provided conscientiously for food according to these les," he adds, "you can, in most cases safely let the appetite be the guide r the rest of the food which the family will eat. A good mixed diet con- ining liberal quantities of the protective foods is the best plan to follow."

The large number of vegetables included in the following menus indicate e protective value of vegetables in the daily diet.

Six Dinner Menus for Winter

Chicken stuffed and roasted
Mashed potatoes Spinach
Celery
Frozen custard
Cake

Roast pork
Turnips Candied sweet potatoes
Cole slaw
Bread and butter
Prune whip

Salsify soup
Poached eggs Turnip greens
Bread and butter
Celery, apple and nut salad
Preserved figs Cream cheese
Crackers

Beef stew with
Carrots, potatoes and onions
Bread and butter
Baked apple
Milk

Beef loaf, tomato sauce
Creamed cabbage
Potatoes, stuffed and baked
Lettuce
Lemon pie
Spare ribs

Mashed potatoes Kale
Pickled peaches
Lettuce
Molasses custard pie

Spring Dinner Menus

Fried chicken
Rice Green peas
Dinner rolls
Lettuce
Radishes
Strawberry ice cream

Poached eggs
Turnip greens Baked potatoes
Corn bread
Spring onions
Rice pudding

Carrots Green peas
Boiled fish
Stewed tomatoes
Radishes
Cherry roll

Baked chicken
Mustard
French fried sweet potatoes
Bread
Tomato aspic
Strawberries and cream

Boiled ham
Cabbage Corn bread Potato cak
Lettuce
Apple pie

Roast beef
Asparagus Boiled potatoe
Cole slaw
Ginger bread

Dinners Suitable for Summer

Broiled chicken
Stewed corn Okra
Tomatoes
Bread
Peaches and cream

Roast lamb, Mint jelly
Green peas Asparagus
Bread
Lettuce and tomato salad
Lemon ice

Fried chicken
String beans Boiled potatoes
Bread
Cucumber and green pepper salad
Iced cantaloupe

Cold sliced ham
String beans Squas
Bread and butter
Cucumber salad
Iced watermelon

Deviled eggs
Buttered beets Okr
Corn fritters
Radishes
Peach ice cream

Cold sliced tongue
Beets Creamed squash
Lettuce sandwiches
Grapes

Autumn Dinners

Roast turkey with dressing
Creamed carrots Spinach
Bread
Celery
Vanilla custard Wafers Coffee

Hamburg steak with crisp bacon
Potatoes au gratin Prune
Lettuce with Russian dressing
Apple roll Hard sauce

Roast pork
Corn bread
Creamed cauliflower
Baked sweet potatoes
Apple and celery salad
Fresh figs

Broiled fish
urnip greens Potato cakes
Tomato aspic
Grapes

Macaroni and cheese
Turnips Salsify with white sauce
Bread and butter
Celery
Apple pie
Milk

Vegetable soup, croutons
Creamed eggs Bread
Lettuce hearts
Nuts and raisins

LEST WE FORGET

1. A half-acre Farm Home Vegetable Garden is equal in money value to 2½ acres of cotton, the average yield of which is one bale per acre.
2. The money value of the Farm Home Garden is only of secondary importance—the food value is of greatest importance.
3. The Farm Vegetable Garden should be a source of supply of a large variety of succulent vegetables.
4. To produce succulent vegetables the garden must be liberally fertilized.
5. Shallow, clean cultivation is essential to successful gardening.
6. The Long-row Garden necessitates the least expenditure of time and labor.
7. Each farmer in North Carolina should produce a Year-around Home Vegetable Garden.